

Appl. No. 09/555,032
Reply to Office Action of September 28, 2003

REMARKS

Claims 1-10 and 12 remain in this application. Claims 1, 5 and 8 have been amended. Claim 11 has been canceled. New claim 12 has been added.

In the Office Action dated February 28, 2003, the Examiner rejected independent claim 11 of the present application under 35 U.S.C. §102(e) as being anticipated by Bandara (U.S. Patent No. 5,899,973). Given that independent claim 11 has been canceled via the present amendment, such rejection has become moot.

The Examiner also rejected claims 1-10 of the present application under 35 U.S.C. §103(e) as being unpatentable over Bandara in view of Matsumoto et al. (U.S. Patent No. 5,848,390). To summarize, the Examiner indicated that the Bandara reference disclosed a method for voice recognition, in which spoken language is recognized using a voice recognition system, which included element a) of independent claim 1. The Examiner went on to acknowledge that Bandara did not, however, disclose such a method which included elements b) through d) of independent claim 1.

The Examiner then relied upon the Matsumoto reference, which teaches a sampling-frequency decision module which decides a sampling frequency of speech data based on a level of CPU performance, to supply missing elements b) through d). Thus, in the Examiner's opinion, it would have been obvious to one of ordinary skill in the art at the time the present invention was made to modify the method of voice recognition of Bandara to further include determining a performance index of the computer by a program for computer performance assessment for the purpose of tailoring the voice recognition system to the particular system on which it is run, based on the teachings of Matsumoto.

Applicant respectfully submits that there is a fatal flaw with respect to the Examiner's reliance on the Matsumoto reference. To be sure, Matsumoto "generally relates to a speech synthesis system and its method for generating a synthesized speech signal of an input text, and more particularly, to a speech synthesis system and its method in which a speech-synthesis processing suitable for a computer use can be realized." (Col. 1, lines 6-11) However, as Applicant will explain further, "speech synthesis" is not the same as "voice recognition."

Referring to the Office Action, the Examiner specifically points out:

Matsumoto teaches a sampling-frequency decision module deciding a sampling frequency of the speech data based on the

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level of CPU performance (Col. 6, lines 61-67; Col. 7, lines 1-8) or a quantization-bit decision module deciding the number of quantization bits of the speech data based on the level of CPU performance (Col. 7, lines 61-67; Col. 8, lines 16-21). Here, the level of CPU performance representing running time is the input quantity and changing the sampling-frequency (Col. 7, lines 15-20) or changing the number of quantization bits of the speech data (Col. 8, lines 16-21) changes the accuracy of the speech synthesis system (Col. 2, lines 19-28). The same technique can be applied not only to a speech synthesis system, but also a voice recognition system.

The Examiner's very last statement, "the same technique can be applied not only to a speech synthesis system, but also to a voice recognition system," is, quite simply, incorrect. Every known speech recognition system and method is based on the fundamental concept of comparing features extracted from a voice signal with features stored in a database. If one were to attempt to incorporate the methods of Matsumoto into a voice recognition system, whereby the sampling frequency of the speech data would be changed or the number of quantization-bits of the speech data would be decided, numerous extracted features would be produced even for the very same speech signal. To achieve successful speech recognition one would then need different reference databases for every possible combination of sampling frequency and number of quantization-bits. This would require that an absolutely exorbitant amount of data would have to be both stored and processed in the respective speech recognition system.

Not only is the above-described scenario contradictory to the goals of the present invention, it flies in the face of speech recognition development in general. Accordingly, Applicant respectfully submits that not only would it not have been obvious for someone skilled in the art to combine the Matsumoto reference with Bandara, but also that such combination would not even result in the present invention as per independent claim 1. Indeed, such results cannot be deemed helpful in any way in the field of speech recognition.

In light of the above, Applicant respectfully submits that independent claim 1, as well as claims 2-10 which respectfully depend therefrom, is both novel and non-obvious over the art of record. In addition, as new independent apparatus claim 12 includes substantially the same elements as independent claim 1, Applicant further submits that this claim is patentable as well.

Accordingly, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

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It is further acknowledged that no fees are due in connection with this response at this time. However, if any fees are due in connection with this application as whole, the office is hereby authorized to deduct said fees from Deposit Account No. 021818. If such a deduction is made, please indicate the attorney docket number (112740-434) on the account statement.

Respectfully submitted,

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